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1 SHEET

AMENDED SPECIFICATION

This drawing is a reproduction of
the Original on a reduced scale.

Impinged
Aluminum sulfide
iodine tablets
(five released)

denser tabs

FIG. 1.

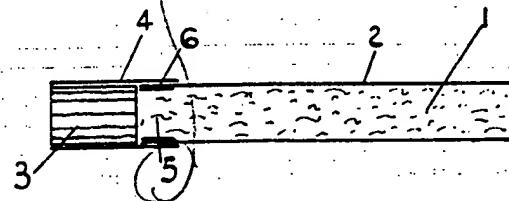
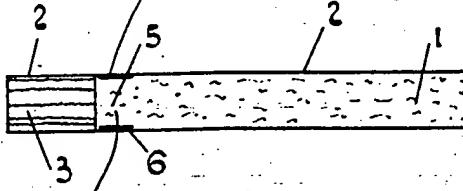


FIG 2



denser tab.

*(five retarded adhesive 6
 (or distinguishing band)
 prevents burning
 down to faster*

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AMENDED SPECIFICATION

Reprinted as amended under Section 8 of the Patents Act, 1949.

PATENT SPECIFICATION

Inventors: MICHAEL BRIAN PELLY and ERNEST VICTOR COFFIN

672,298



Date of filing Complete Specification (under Section 16 of the Patents and Designs Acts, 1907 to 1946): Oct. 6, 1950.

Application Date: Nov. 19, 1949. No. 29636/49.

Application Date: Nov. 26, 1949. No. 30337/49.

Complete Specification Published: May 21, 1952.

EXAMINER'S COPY

DIV. 2

Index at acceptance:—Classes 121, A; and 130, Cls(1: 4), C2.

COMPLETE SPECIFICATION

Improvements in or relating to Cigarettes with Filter Plugs or other Internal Mouthpieces

We, THE IMPERIAL TOBACCO COMPANY (OF GREAT BRITAIN & IRELAND) LIMITED, a British Company, of East Street, Bedminster, in the City and County of Bristol, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

10 This invention relates to cigarettes of the type that include filter plugs or other internal mouthpieces.

With cigarettes of this type as previously made there is sometimes a tendency for the burning tobacco "coal" to fall out when the cigarette is smoked down close to the filter plug or other internal mouthpiece, thus incurring a fire danger.

The object of this invention is to avoid or minimise this defect.

25 The present invention consists in a cigarette of the type referred to, in which the part of the tobacco portion that is close to the filter plug or other internal mouthpiece is secured to the paper covering enclosing the tobacco by an adhesive that contains a fire retardant, whereby when the cigarette is smoked down close to the end of the tobacco portion the burning tobacco "coal" tends to be extinguished and so is retained in position without falling out, and yet the drawing qualities of the cigarette are not materially affected.

30 35 The part of the tobacco portion that is close to the filter plug or other internal mouthpiece (i.e. where it is adhesively secured to the paper covering) may be made denser than the remainder of the tobacco portion.

Cigarettes in accordance with the invention

are diagrammatically indicated in the accompanying drawings in which Fig. 1 is a longitudinal cross section of a cigarette of the kind in which the paper covering enclosing the tobacco does not extend to enclose the filter plug or other internal mouthpiece but is secured thereto by an encircling band.

Fig. 2 is a longitudinal cross section of a cigarette of the kind in which the paper covering enclosing the tobacco extends so as also to enclose the filter plug or other internal mouthpiece.

Referring to Fig. 1 the cigarette there indicated is of the known kind including a tobacco portion 1 enclosed by its paper covering 2 the whole being secured to a filter plug or other internal mouthpiece 3 by an encircling band 4.

In this kind of cigarette the paper covering 2 does not extend to enclose the filter plug or other internal mouthpiece 3.

When applying the present invention to this kind of cigarette the part 5 of the tobacco portion that is close to the filter plug or other internal mouthpiece 3 is secured to the paper covering 2 enclosing the tobacco by an adhesive, indicated by 6, that contains a fire retardant.

In a modification the said part 5 of the tobacco portion may be made denser than the remainder, such increase of density having the effect of increasing the grip of the paper covering on the part 5 of the tobacco portion 3, and thus further decreasing the chance of the burning tobacco coal being allowed to fall out.

In one convenient known method of manufacturing cigarettes of the type first referred to, a double length cigarette is first formed on

a 'continuous rod' cigarette making machine without any filter plug or other internal mouthpiece, and such double length cigarettes are then combined in another known machine 5 with double length filter plugs or other internal mouthpieces and made into a continuous rod by the addition of encircling bands, and subsequently cut into individual cigarettes.

In such case the double length cigarette first formed will have the tobacco portions secured by an adhesive to the paper covering at both ends, such adhesive, which contains a fire retardant, being applied to appropriate parts of the inside surface of the paper web during 15 the manufacture of such cigarettes.

When the parts 5 of the tobacco portions are denser than the remainder, this will also be effected on the first continuous rod machine.

Referring to Fig. 2, the cigarette there indicated is of the known type including a tobacco portion 1 enclosed by its paper covering 2 that extends so as also to enclose a filter plug or other internal mouthpiece 3.

When applying the present invention to this kind of cigarette the part 5 of the tobacco portion that is close to the filter plug or other internal mouthpiece 3 is secured to the paper covering 2 enclosing the tobacco by an adhesive, indicated by 6, that contains a fire retardant.

If desired the part 5 of the tobacco portion may be made denser than the remainder, thus increasing the grip between the paper covering 2 and the part 5 of the tobacco portion.

In one convenient method of making such cigarettes alternate double length tobacco portions and double length filter plugs (or other internal mouthpieces) are made up into a continuous filling and then enclosed in a continuous paper wrapping to form a continuous rod that is then cut into individual cigarettes 40 for example as described in the Complete Specification of Patent Applications Nos. 31194/48 and 23439/49 (Cognate).

In this case it is necessary to apply the adhesive to the appropriate parts of the paper web, and when the parts 5 of the tobacco portion are denser than the remainder, the tobacco portions must be suitably modified to effect 50 this.

Suitable fire-retardants for incorporating in the adhesive used to secure the part 5 of the tobacco portion to the paper covering 2 (both in the case of Fig. 1 and Fig. 2) may comprise aluminium sulphate or sodium dihydrogen phosphate.

In British Patent Specification No. 689,897, claim is made to a cigarette comprising a tobacco filler, a paper tube and a mouthpiece portion, said tube being provided with a 60 patch, line or the like of adhesive material on a part of its interior surface which encloses a part of the tobacco filler and which is in close proximity to the inner end of the mouthpiece portion.

What we claim is:—

1. A cigarette of the type referred to in which the part of the tobacco portion that is close to the filter plug or other internal mouthpiece is secured to the paper covering enclosing the tobacco by an adhesive that contains a fire retardant, whereby when the cigarette is smoked down close to the end of the tobacco portion the burning tobacco "coal" tends to be extinguished and so is retained in position without falling out, and yet the drawing qualities of the cigarette are not materially affected.

2. A cigarette as claimed in claim 1, in which the part of the tobacco portion that is close to the filter plug or other internal mouthpiece (i.e. where it is adhesively secured to the paper covering) is made denser than the remainder of the tobacco portion.

3. A cigarette as claimed in Claim 1 or 2, in which the paper covering enclosing the tobacco does not extend to enclose the filter plug or other internal mouthpiece, but is secured thereto by an encircling band.

4. A cigarette as claimed in Claim 1 or 2 in which the paper covering enclosing the tobacco extends so as also to enclose the filter plug or other internal mouthpiece.

5. A method of manufacturing cigarettes as claimed in Claim 3, in which double length cigarettes are first made on a continuous rod machine and the adhesive is applied at proper spaced intervals to the inside surface of the paper web so that at the ends of said double length cigarettes the tobacco filling is adhesively secured to the paper, and then these double length cigarettes are subsequently combined with filter plugs or other internal mouthpieces, and cut to provide cigarettes as claimed in Claim 3.

6. An improved cigarette substantially as hereinbefore described and illustrated in the accompanying drawings.

C. G. R. ELSDON,
Chartered Patent Agent,
East Street, Bedminster, Bristol, 3.

FIRE-RETARDANT

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PROVISIONAL SPECIFICATION
No. 29636 A.D. 1949.

Improvements in or relating to Cigarettes with Filter Plugs or other Internal Mouthpieces

We, THE IMPERIAL TOBACCO COMPANY (OF GREAT BRITAIN & IRELAND) LIMITED, a British Company, of East Street, Bedminster, in the City and County of Bristol, do hereby declare the nature of this invention to be as follows:—

This invention relates to cigarettes with filter plugs or other internal mouthpieces.

When such a cigarette is smoked down close to the filter plug or other internal mouthpiece, there is a tendency for the burning tobacco "coal" to fall out, thus incurring a fire danger.

The object of the present invention is to avoid or minimise this defect.

The invention consists in a cigarette with a filter plug or other internal mouthpiece in which the tobacco portion close to the filter plug or other internal mouthpiece is adhesively secured to the paper covering of the cigarette, whereby when the cigarette is smoked down close to the end of the tobacco portion the burning tobacco "coal" is retained or tends to be retained in position without falling out, and yet the drawing qualities of the cigarette are not materially affected.

Preferably a non-inflammable adhesive is used, for example, aluminium sulphate, or sodium dihydrogen sulphate.

In manufacturing such a cigarette it is only necessary to apply adhesive to the appropriate

parts of the paper web.

There are broadly two methods of making such cigarettes on the continuous rod principle.

In one method, a double length cigarette is first formed without any filter plug or other mouthpiece, and the latter are then combined with double length filter plugs or other mouthpieces and cut into individual cigarettes.

In such case, the double length cigarettes first formed will have the tobacco portions adhesively secured to the paper covering at both ends.

It will be appreciated that such adhesive attachment can be effected by applying adhesive to appropriate parts of the paper web.

In another method tobacco portions and filter plugs (or other internal mouthpieces) are formed as a continuous rod and then enclosed in a continuous paper wrapping which is then cut into individual cigarettes, for example, as described in the Complete Specification of Patent Applications Nos. 31194/48 (Serial No. 647,657) and 23439/49 (cognate).

In this latter case it is necessary to apply adhesive to the appropriate parts of the paper web.

Dated this 18th day of November, 1949.

C. G. R. ELSDON,
Chartered Patent Agent,
East Street, Bedminster, Bristol, 3.

PROVISIONAL SPECIFICATION
No. 30337 A.D. 1949.

Improvements in or relating to Cigarettes with Filter Plugs or other Internal Mouthpieces

We, THE IMPERIAL TOBACCO COMPANY (OF GREAT BRITAIN & IRELAND) LIMITED, a British Company, of East Street, Bedminster, in the City and County of Bristol, do hereby declare the nature of this invention to be as follows:—

This invention relates to cigarettes with filter plugs or other internal mouthpieces and consists of improvements in or modifications of the invention described in the Provisional Specification accompanying our Patent Application No. 29636/49 dated 19th November, 1949.

The invention according to our said prior Provisional Specification consisted in a cigarette with a filter plug or other internal mouthpiece in which the tobacco portion close

to the filter plug or other internal mouthpiece is adhesively secured to the paper covering of the cigarette, whereby when the cigarette is smoked down close to the end of the tobacco portion the burning tobacco "coal" is retained or tends to be retained in position without falling out, and yet the drawing qualities of the cigarette are not materially affected.

According to one feature of the present invention the tobacco portion is made denser close to the filter plug or other internal mouthpiece where it is adhesively secured to the paper covering.

Such increase of density has the effect of increasing the grip of the paper covering on the tobacco portion at this point, and thus

decreases the chance of the burning tobacco "coal" being allowed to fall out.

According to another feature of the invention the adhesive used contains fire retardants for example, aluminium sulphate or sodium dihydrogen phosphate.

In one method of carrying out the present invention, a double length cigarette is first formed without any filter plug or other mouthpiece but with the tobacco portion made denser at both ends, and such denser portion secured to the paper covering by adhesive. The adhesive portion and denser tobacco por-

tions, may extend about a quarter of an inch at each end.

The double length cigarettes so formed are less than double the length of the cigarette to be finally obtained, and have subsequently to be combined with double length filter plugs or other mouthpiece portions, and cut into the 20 individual cigarettes.

Dated this 25th day of November, 1949.

C. G. R. ELSDON,
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